

**USING A SUSTAINABILITY CONTEXT
TO DRIVE
ECOSYSTEM SERVICES ANALYSIS
FOR DECISION MAKING**

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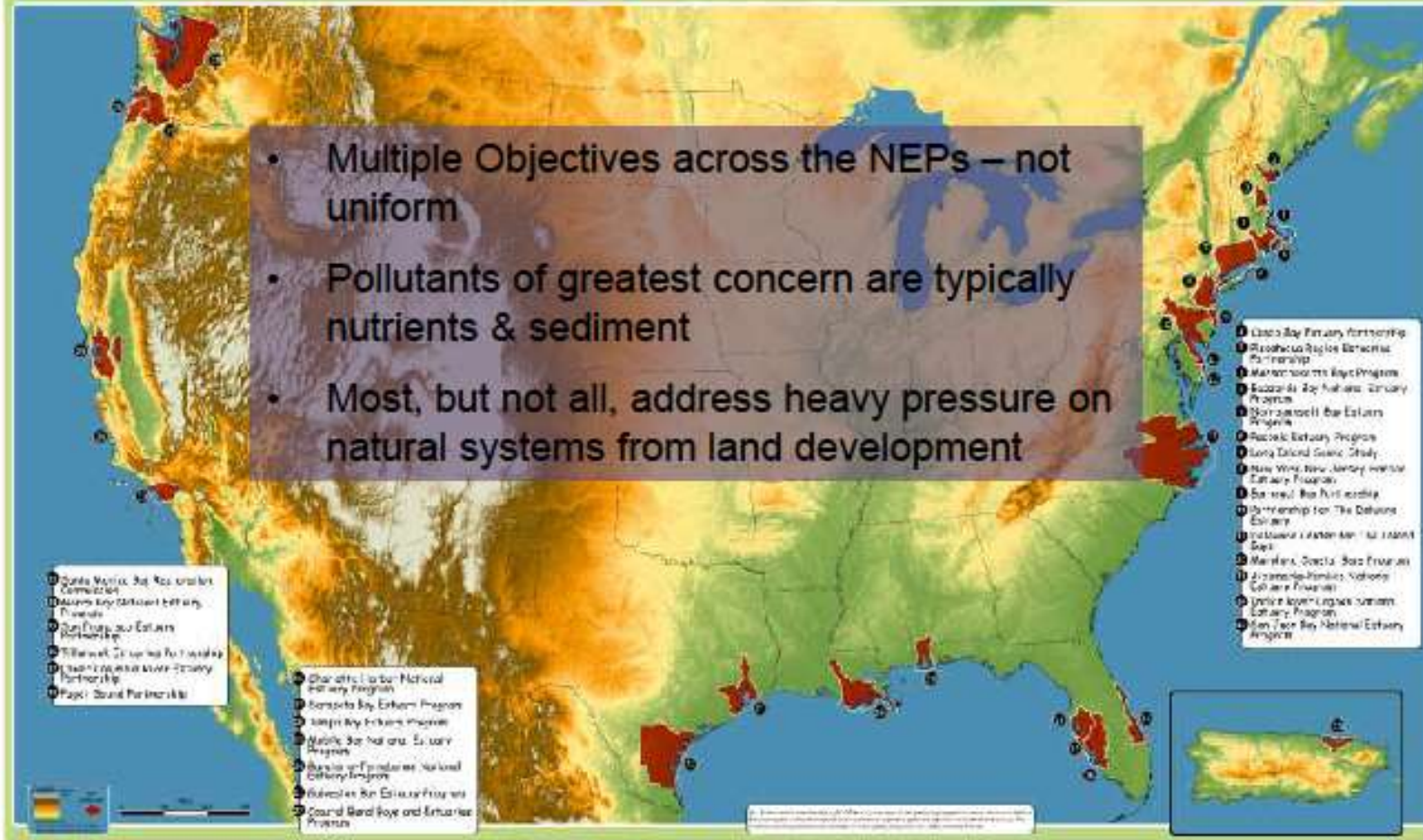
Overview

- This discussion is assembled from three components:
 - Results of Survey Research on the use of ecosystem services information in the U.S. National Estuary Program (NEP)
 - Literature review of decision sciences and sustainability science
 - Exploration of The Theory of Communicative Action by Jürgen Habermas as a lens through which to interpret the research
- Conclusions on the use Ecosystem Services information in NEPs is interpreted using the Theory of Communicative Action,
- A hypothesis is offered on the utility of sustainability frameworks to advance the use of ecosystem services information in decision making.

Survey research conducted on a population of 28 NEPs in the U.S.



NATIONAL ESTUARY PROGRAM STUDY AREAS



Survey Research Findings

- The surveys explored how information on ES is used for environmental protection decision making by NEPs.
 - Does information on ecosystem service valuation provide value to decision-makers and does it achieve environmental protection goals?"
 - Does ESV represent a successful technique to communicate the importance of ecological health and ecological systems' integrity to society or stakeholders?
 - Does communication of ecosystem service valuation improve environmental decision outcomes in decisions which balance ecological protection against economic development?
- Ecosystem services information, when used, was mostly qualitative.

Theory of Communicative Action

- The Theory of Communicative Action presents an explanation of social evolution and how ideas contribute to the evolution of subjective, normative and objective belief systems.
- Habermas terms the normative context "lifeworld," to connote "culturally established standards of value."
- The theory describes a process whereby normative values held in lifeworld can be transmitted and established in institutional settings (and vice-a-versa).
- The theory offers a means to interpret and comprehend the use of ecosystem services information in decision making.

Literature Review Key Findings

- The limits of normal science to inform decisions in institutional settings are reached once scientific “knowledge” interacts with other ways people understand and make decisions, such as politics, ethics and spirituality – all *value* orientations.
- Decisions about sustainability depend on the reasoned judgment of the decision-maker, and are both normative and circumstantial.
- Sustainability, fostered as a normative construct, has achieved a degree of acceptance as measurable outcomes within institutions.

Findings and Conclusions

- Quantification of ecosystem services adds benefits to the environmental protection column, so in theory there is a better representation of the full value of protecting public goods. But, ecosystem services don't accrue only to the public interest, public goods are not just for the public interest.
- The traditional public vs. private interest dichotomy breaks down with the information provided by ecosystem services value. The sustainability framework can provide an analytical approach that joins ecological carrying capacity with economic equity and social justice.

Findings and Conclusions

- The US National Estuary Programs reported a predominately qualitative use of ecosystem services information.
- Support for using the information qualitatively for framing NEP goals and participatory planning was strong.
- Habermas's Theory of Communicative Action supports an explanation that among the reasons why quantitative ES information is not used is the lack of a normative context - or demand for its use by institutional decision makers.
- Building greater awareness of what ecosystem services are and mean for our social and economic well-being is key for grounding the concept, and for its eventual adoption as a measurable (or quantitative) outcome in institutional decision making.

Findings and Conclusions

- Sustainability frameworks can provide a vehicle for promoting awareness of ecosystem services.
- Sustainability frameworks are useful for incorporating values into performance metrics that can be used for decision making.
- Ecosystem services are just such an example of a sustainability ecological performance metric.

Other Observations

- The use of ecosystem services valuation data, alone, absent attention to supporting values may reinforce a narrow optimization for “efficient outcomes” without evaluating larger system sustainability goal/s.
- Habermas’s Theory of Communicative Action hypothesizes three spheres of knowledge and decision making, objective analysis in institutional settings, normative values in Lifeworld, and a subjective personal context. The ecosystem services concept is a useful construct in all three spheres of knowledge; and thus fosters cognitive congruence.